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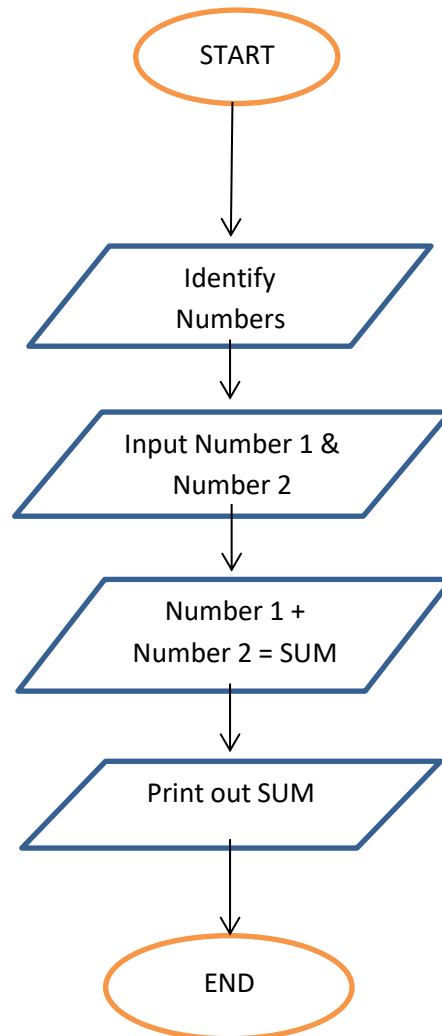BSTM 191   PROGCON

Activity 2: Flowcharting Exercises

I.   "Flowchart of adding two numbers"
   • Identify Numbers
   • Input Numbe 1 & Nunber 2
   • Print out SUM

```
                    ┌─────────────┐
                    │    START    │
                    └──────┬──────┘
                           │
                           ▼
                    ╱───────────────╲
                   ╱    Identify      ╲
                   ╲    Numbers       ╱
                    ╲───────────────╱
                           │
                           ▼
                    ╱───────────────╲
                   ╱  Input Number 1 & ╲
                   ╲    Number 2      ╱
                    ╲───────────────╱
                           │
                           ▼
                    ╱───────────────╲
                   ╱    Number 1 +    ╲
                   ╲  Number 2 = SUM  ╱
                    ╲───────────────╱
                           │
                           ▼
                    ╱───────────────╲
                   ╱   Print out SUM  ╲
                    ╲───────────────╱
                           │
                           ▼
                    ┌─────────────┐
                    │     END     │
                    └─────────────┘
```

II.   "Flowchart of finding the Radius and the Diameter of a Circle"

- The area of a circle can be found by multiplying pi (π = 3.14) by the square of the radius
- If a circle has a radius of 4, its area is 3.14*4*4=50.24
- If you know the diameter, the radius is 1/2 as large

Steps on getting the Diameter of a Circle:

- If you know the radius of the circle, double it to get the diameter. ..
- If you know the circumference of the circle, divide it by π to get the diameter. ...
- If you know the area of the circle, divide the result by π and find its square root to get the radius; then multiply by 2 to get the diameter.

```
                              START

                         Identify the given

      YES                                              NO
Identify the Radius  ◄──  Is Radius  ──►  Is Diameter  ──►  Identify the
                          Given?          Given?       NO   circumference
                                                            of a circle
        │                                    │
        ▼                              YES   ▼                    │
  Input the given                                                 ▼
  Radius                         Identify Diameter          Divide the
                                                            circumference
        │                              │                    of the circle to
        ▼                              ▼                     the value of the
  Identify the Value             Input the given             PI
  of PI                          Diameter
                                                                  │
        │                              │                          ▼
        ▼                              ▼
  Calculate the area = PI        Divide into 2 the            D= C/PI
  *R *R                          given diameter to
                                 get the radius                   │
        │                                                         ▼
        ▼                              │
                                       ▼                     Input Radius
  Print the Value of   ◄── Calculate the area = PI ◄── Identify the Value
  Area                     *R *R                       of PI

        │
        ▼
       END  ◄── Print the Value of ◄── Calculate the area = PI ◄── Calculate the area = PI
                Area                   *R *R                       *R *R
```